

**[54] QUICK-SETTING BITUMINOUS EMULSION COMPOSITIONS****[75] Inventors:** Richard L. Ferm, Lafayette; Chester C. Latif, Turlock, both of Calif.**[73] Assignee:** Chevron Research Company, San Francisco, Calif.**[21] Appl. No.:** 255,604**[22] Filed:** May 22, 1972**Related U.S. Application Data****[63]** Continuation-in-part of Ser. No. 672,746, Oct. 4, 1967, abandoned, and a continuation-in-part of Ser. No. 757,137, Sep. 3, 1968, abandoned, and a continuation-in-part of Ser. No. 68,502, Aug. 31, 1970, abandoned.**[51] Int. Cl.<sup>2</sup> .....** C08L 95/00**[52] U.S. Cl. ....** 106/277; 106/283**[58] Field of Search .....** 106/96, 273-284; 252/311.5**[56] References Cited****U.S. PATENT DOCUMENTS**

1,831,544	11/1931	Pratt et al. ....	106/277
2,488,252	11/1949	Wood .....	106/277 X
2,676,155	4/1954	Farris .....	106/277 X
2,714,582	8/1955	Day .....	106/277 X
2,773,777	12/1956	Alexander et al. ....	106/277 X
3,206,174	9/1965	Young .....	106/283 X
3,206,319	9/1965	Minnick et al. ....	106/119
3,305,379	2/1967	Ferm .....	106/277
3,513,005	5/1970	Bradshaw et al. ....	106/277

3,615,796 10/1971 Schreuders ..... 106/277

**FOREIGN PATENT DOCUMENTS**

1419652 10/1965 France .

**OTHER PUBLICATIONS**

Abraham, Asphalts and Allied Substances, Fifth Ed., vol. 1, published by D. Van Nostrand Co. Inc., N.J. 1945, pp. 56-69, relied on.

Barth, Asphalt Science and Technology, Published by Gordon and Breach, N.Y., 1962, pp. 506-527, relied on. Schwartz et al., Surface Active Agents, vol. I, Pub. by Interscience Pub. Inc., N.Y., 1949, pp. 92-94 and 120-127, relied on.

*Primary Examiner*—Theodore Morris*Attorney, Agent, or Firm*—S. R. LaPaglia; L. L. Vaughan**[57] ABSTRACT**

Quick setting, anionic bitumen emulsion compositions, suitable for road paving, recreational surfaces, etc., are formulated by emulsifying the bitumen in water with an ammonium or alkali metal salt of a hydrocarbon-substituted sulfuric, sulfonic, phosphoric or phosphonic acid emulsifier, mixing the emulsion with a fine aggregate and, prior to spreading the aggregate emulsion mixture, introducing an alkaline earth metal set initiator. The resulting composition rapidly breaks to a hard cohesive structure, so as to permit early use by traffic.

**8 Claims, No Drawings**